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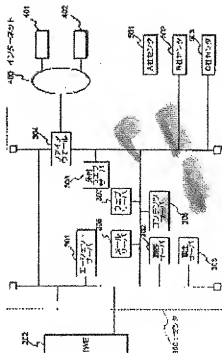
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(57)Abstract:

PROBLEM TO BE SOLVED: To realize a providing method for information which quickly and also safely provides information while reducing an operation in a communication terminal.

SOLUTION: In a center 300, it has service that connects to the Internet with simple procedures and service which charges information stored by the center 300 and information stored by other company centers and then offers service in a form that is suitable to a communication terminal 100 under high security.

Because the former is service that just offers information on the Internet 400 as it is to the terminal 100, it performs authentication only based on a subscriber number included in a call setting signal transmitted when the terminal 100 makes a connection request and attaches an IP(Internet protocol) address.



Because the latter is requested for a user authentication method having higher security, it performs authentication based on a user ID and a password in addition to the subscriber number including in a call setting signal transmitted when the terminal 100 performs a connection request.

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CLAIMS

[Claim(s)]

[Claim 1] The offer approach of the information characterized by having the terminal specific information receiving phase of receiving the terminal specific information which specifies the communication terminal concerned with the connection request from said communication terminal in the information offer approach of transmitting data through a communication line to the attested communication terminal, and the authentication phase which attests whether said connection request is recognized based on said terminal specific information which received.

[Claim 2] In the information offer approach of transmitting data through a communication line to the attested communication terminal with the connection request from said communication terminal the terminal specific information receiving phase of receiving the terminal specific information which specifies the communication terminal concerned, The customer specific information receiving phase of receiving the customer specific information which specifies a customer, and the customer specific information for authentication which is the customer specific information beforehand memorized for said every terminal specific information, The offer approach of the information characterized by having the authentication phase which attests whether said received customer information is compared and said connection request is recognized based on the comparison result concerned.

[Claim 3] The offer approach of the information which is equipped with the address grant phase which gives the Internet protocol address to said attested communication terminal in the offer approach of information according to claim 1 or 2, and is characterized by transmitting data using said given Internet protocol address.

[Claim 4] In the information offer approach of transmitting data through a communication line to a communication terminal with the connection request from said communication terminal the terminal specific information receiving phase of receiving the terminal specific information which specifies the communication terminal concerned, the customer information beforehand memorized for said every communication terminal -- ** -- with the customer information Request-to-Send phase of requiring transmission of said customer information corresponding to said terminal specific information inside The offer approach of the information characterized by having the data transmitting phase of transmitting the data corresponding to said customer information to said communication terminal based on said transmitted customer information.

[Claim 5] claim 1 thru/or 4 -- the offer approach of the information characterized by said terminal specific information being a subscriber's number in said communication line in the offer approach of information given in either.

[Claim 6] It is the offer approach of the information characterized by including the processing information for specifying the processing performed in order that said customer information may obtain the data corresponding to the customer information concerned in the offer approach of information according to claim 4.

[Claim 7] It is the offer approach of the information characterized by including individual humanity news required for the processing performed in order for said customer information to be the individual

humanity news of the customer corresponding to the customer information concerned in the offer approach of information according to claim 4 and to obtain the data corresponding to the customer information concerned.

[Claim 8] The offer approach of the information characterized by having the accounting phase which generates the accounting information corresponding to said customer information in the offer approach of information according to claim 4 according to transmission of said data.

[Claim 9] Offer equipment of the information characterized by to have a terminal specific information receiving means receive the terminal specific information which specifies the communication terminal concerned with the connection request from said communication terminal in the information offer equipment which transmits data through a communication line to the attested communication terminal, and the authentication means which attests whether said connection request is recognized based on said terminal specific information which received.

[Claim 10] In the information offer equipment which transmits data through a communication line to the attested communication terminal with the connection request from said communication terminal A terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned, A customer specific information receiving means to receive the customer specific information which specifies a customer, and the customer specific information for authentication which is the customer specific information beforehand memorized for said every terminal specific information, Offer equipment of the information characterized by having the authentication means which attests whether said received customer information is compared and said connection request is recognized based on the comparison result concerned.

[Claim 11] Offer equipment of the information which is equipped with an address grant means to give the Internet protocol address to said attested communication terminal in the offer equipment of information according to claim 9 or 10, and is characterized by transmitting data using said given Internet protocol address.

[Claim 12] In the information offer equipment which transmits data through a communication line to a communication terminal with the connection request from said communication terminal A terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned, A customer information storage means to memorize customer information for said every communication terminal beforehand, and a customer information Request-to-Send means to require transmission of said customer information corresponding to said terminal specific information from said customer information storage means, Offer equipment of the information characterized by having a data transmitting means to transmit the data corresponding to said customer information to said communication terminal, based on said customer information transmitted from said customer information storage means.

[Claim 13] claim 9 thru/or 12 -- the offer equipment of the information characterized by said terminal specific information being a subscriber's number in said communication line in the offer equipment of information given in either.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the informational offer approach of offering information through a communication line to a communication terminal, and informational offer equipment.

[0002]

[Description of the Prior Art] Conventionally, the technique of offering information through a communication line to a communication terminal is known. For example, if it is personal computer communications, a user's communication terminal can be connected to the host computer of a personal-computer-communications firm through the telephone line, and the information which a host computer offers can be acquired. Moreover, when accessing the Internet, a user's communication terminal is connected to a provider, and the user is provided with the information on the Internet when a provider makes connection with the Internet by proxy. In this case, the provider offers the information on the Internet by giving an IP address (Internet protocol address) to the connected communication terminal.

[0003]

[Problem(s) to be Solved by the Invention] In such a Prior art, those who offer information of a personal computer carrier, a provider, etc. are performing the procedure for checking whether the connected communication terminal is a communication terminal of the user of normal. Specifically, the provider of whom connection was required demands transmission of user ID from a communication terminal first. A communication terminal transmits user ID to a provider to the demand. A provider will demand transmission of a password from a communication terminal next, if it checks that user ID is ID of normal. A communication terminal transmits a password to the demand. And a provider performs user authentication by distinguishing whether the transmitted password is a password corresponding to the user ID transmitted previously.

[0004] However, in the offer approach of such conventional information, probably, since user authentication procedure took time amount, the user was not able to receive informational offer quickly. Moreover, when the third person had received user ID and a password, there was a possibility of providing an inaccurate user with information. Furthermore, in order to receive offer of the information for which a user asks, the communication terminal was operated, various information may have to be transmitted and it took time and effort very much.

[0005] It aims at quick and realizing the informational offer approach of offering information, and informational offer equipment safely, mitigating [this invention is made in order to solve the technical problem mentioned above, and] the actuation in a communication terminal.

[0006]

[Means for Solving the Problem] It is characterized by to have the authentication phase which attests whether said connection request is recognized based on said received terminal specific information with the terminal specific-information receiving phase receive the terminal specific information which specifies the communication terminal concerned with the connection request from said communication

terminal in the information offer approach of transmitting data through a communication line to the communication terminal with which invention according to claim 1 was attested in order to solve the technical problem mentioned above. In the information offer approach of transmitting data through a communication line to the communication terminal with which invention according to claim 2 was attested moreover, with the connection request from said communication terminal The terminal specific information receiving phase of receiving the terminal specific information which specifies the communication terminal concerned, The customer specific information receiving phase of receiving the customer specific information which specifies a customer, and the customer specific information for authentication which is the customer specific information beforehand memorized for said every terminal specific information, Said received customer information is compared and it is characterized by having the authentication phase which attests whether said connection request is recognized based on the comparison result concerned. Moreover, in the offer approach of information according to claim 1 or 2, invention according to claim 3 is equipped with the address grant phase which gives the Internet protocol address to said attested communication terminal, and is characterized by transmitting data using said given Internet protocol address. In the information offer approach that invention according to claim 4 transmits data through a communication line to a communication terminal moreover, with the connection request from said communication terminal The terminal specific information receiving phase of receiving the terminal specific information which specifies the communication terminal concerned, the customer information beforehand memorized for said every communication terminal -- ** -- with the customer information Request-to-Send phase of requiring transmission of said customer information corresponding to said terminal specific information, inside It is characterized by having the data transmitting phase of transmitting the data corresponding to said customer information to said communication terminal based on said transmitted customer information. moreover, invention according to claim 5 -- claim 1 thru/or 4 -- in the offer approach of information given in either, said terminal specific information is characterized by being a subscriber's number in said communication line. Moreover, invention according to claim 6 is characterized by said customer information including the processing information for specifying the processing performed in order to obtain the data corresponding to the customer information concerned in the offer approach of information according to claim 4. Moreover, in the offer approach of information according to claim 4, said customer information is the individual humanity news of the customer corresponding to the customer information concerned, and invention according to claim 7 is characterized by including individual humanity news required for the processing performed in order to obtain the data corresponding to the customer information concerned. Moreover, invention according to claim 8 is characterized by having the accounting phase which generates the accounting information corresponding to said customer information according to transmission of said data in the offer approach of information according to claim 4.

[0007] Moreover, invention according to claim 9 is characterized by having a terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned with the connection request from said communication terminal, and the authentication means which attests whether said connection request is recognized based on said terminal specific information which received in the information offer equipment which transmits data through a communication line to the attested communication terminal. In the information offer equipment which transmits data through a communication line to the communication terminal with which invention according to claim 10 was attested moreover, with the connection request from said communication terminal A terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned, A customer specific information receiving means to receive the customer specific information which specifies a customer, and the customer specific information for authentication which is the customer specific information beforehand memorized for said every terminal specific information, Said received customer information is compared and it is characterized by having the authentication means which attests whether said connection request is recognized based on the comparison result concerned. Moreover, in the offer equipment of information according to claim 9 or 10, invention according to claim 11 is equipped with

an address grant means to give the Internet protocol address to said attested communication terminal, and is characterized by transmitting data using said given Internet protocol address. In the information offer equipment with which invention according to claim 12 transmits data through a communication line to a communication terminal moreover, with the connection request from said communication terminal A terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned, A customer information storage means to memorize customer information for said every communication terminal beforehand, and a customer information Request-to-Send means to require transmission of said customer information corresponding to said terminal specific information from said customer information storage means, It is characterized by having a data transmitting means to transmit the data corresponding to said customer information to said communication terminal, based on said customer information transmitted from said customer information storage means. moreover, invention according to claim 13 -- claim 9 thru/or 12 -- in the offer equipment of information given in either, said terminal specific information is characterized by being a subscriber's number in said communication line.

[0008]

[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained with reference to a drawing.

[0009] 1. configuration 1-1. outline **** of an operation gestalt -- drawing 1 is drawing showing the outline configuration of an operation gestalt first. This operation gestalt is constituted so that the center 300 which contractors, such as a provider, have may provide a user's communication terminal 100 with information through a communication line (migration network 200).

[0010] The communication terminals 100 in drawing are migration communication terminals, such as a cellular phone and a land mobile radiotelephone, and are connected to the migration network 200 through a base station BS. The communication terminal 100 may be equipped with the function which displays the information offered, and you may make it display information on other equipments, such as a connected note type personal computer and an electronic notebook.

[0011] The migration network 200 is a communication line concerning mobile communication, such as a cellular phone, and is equipped with the migration exchange 201 and INTAWAKU equipment (IWE) 202. The migration exchange 201 is the exchange which held the personal digital assistant which has joined the migration network 200. INTAWAKU equipment 202 is the subscriber exchange of center 300 dedication, and INTAWAKU equipment 202 and a center 300 are connected by the dedicated line.

[0012] A center 300 is for offering information concerning this invention. In addition, about a detailed configuration, it mentions later. The center 300 is further connected to the Internet 400 and the centers 501, 502, and 503 of the other company, and a communication terminal 100 can be provided now with the information offered from the internet servers 401 and 402 on the Internet 400, or the information offered from the centers 501, 502, and 503 of the other company.

[0013] 1-2. Explain the configuration of a center 300 with reference to the configuration, next drawing 2 of a center. INTAWAKU equipment 202 is connected with the center 300 by two dedicated lines. One network is a network for offering the information on the Internet by offering the service connected to the Internet in a simple procedure. Another network is a network for providing in the format which was suitable under high security at the communication terminal 100 after charging the information which a center 300 holds, and the information which the center of the other company (the 501 or B company center 502 of A company centers, C company center 503) holds. Hereafter, in explanation of this operation gestalt, make into an "Internet access service" service which offers information by the former network, and let service which offers information by the latter network be "mobile data utility."

[0014] Moreover, with this operation gestalt, the telephone number No2 of the connection place of the user at the time of connecting in order to receive the telephone number No1 of the connection place of the user at the time of connecting in order to receive offer of an "Internet access service", and offer of "mobile data utility" is a different number. That is, a user does call origination to the telephone number according to the service which receives offer, performs a connection request, and distinguishes the service which should be offered with the telephone number of a connection place in a center 300 side.

And also in which network, information is offered using the Internet Protocol which gave and gave the IP address (Internet protocol address) to the connected communication terminal 100.

[0015] By the way, since an "Internet access service" is service which only provides a communication terminal 100 with the information on the Internet 400 as it is, the not much strict user authentication approach is not required. Rather, the user is demanding to be quickly connectable in a simple procedure. On the other hand, "mobile data utility" is the information which needs accounting, or since it is the information offered based on individual humanity news as mentioned later, the user authentication approach that security is more high is required. So, with this operation gestalt, the connection from a communication terminal 100 shall be received using the user authentication approach different, respectively from an "Internet access service" and "mobile data utility."

[0016] It attests only based on the subscriber's number contained in the call setup signal specifically sent in an "Internet access service" in case a communication terminal 100 performs a connection request to the telephone number No1, and an IP address is given. Therefore, a user can access the Internet 400, if it only calls to the telephone number No1. Moreover, in "mobile data utility", it attests based on user ID and a password besides the subscriber's number contained in the call setup signal sent in case a communication terminal 100 performs a connection request to the telephone number No2. In addition, it mentions later in more detail.

[0017] In order to offer information to the user who uses a communication terminal 100 by such an "Internet access service" and "mobile data utility", the center 300 is constituted as a network equipped with the various servers (the agent server 301, the customer server 302, the accounting server 303, a fire wall 304, a mail server 305, the contents server 306, a web server 307, and web server 308 with outside) shown in drawing 2.

[0018] First, the agent server 301 is a server for performing authentication and linkage of each server, and also performs processing of conversion of a display format besides being network maintenance and monitor, offer of application, etc. Moreover, when the data format which can be displayed has a limit in a communication terminal 100, external contents, such as contents on the Internet 400 and contents of the centers 501, 502, and 503 of the other company, are changed into the data of display form suitable for a communication terminal 100.

[0019] The customer server 302 is a server which memorized the customer data mentioned later, and transmits customer data to other servers of other with directions of an agent server. Other servers which received customer data can perform processing for information offer based on customer data. More specifically in actuation of an operation gestalt, an example is given and explained.

[0020] The accounting server 303 is a server which performs processing about accounting concerning informational offer. A fire wall 304 is the server for protecting a center 300 from the exterior connected to the Internet 400, and performs sorting of the data to pass etc. The mail server 305 is equipped with the mail box, and performs processing about an electronic mail. The contents server 306 is a server which memorized the information (contents) for providing for a communication terminal 100. Moreover, a web server 307 and the web server 308 with outside are servers for offering various information, such as a homepage containing the image using GUI (Graphical User Interface), an alphabetic character, etc.

[0021] 1-3. Explain a customer database, next the customer data memorized by the customer server 302. Information is recorded for every subscriber's number of a communication terminal 100, and the user (customer) registered in order to receive offer of data utility from a center 300 is managed as a customer database. And a communication terminal 100 can search data now based on the subscriber's number contained in the call setup signal sent at the time of a connection request.

[0022] Here, drawing 3 is drawing showing the example of the contents of the customer database. The customer database has memorized authentication information, individual humanity news, provided information, functional information, etc. corresponding to a subscriber's number, as shown in drawing 3. Although user authentication information consists of user ID, a password, etc. and user ID and a password are the information which the user registered beforehand at the time of a contract, a password can be updated to arbitration.

[0023] With this operation gestalt, user ID and a password are used as user authentication information

(customer specific information for authentication) which specifies the person who connected authentication information, using a subscriber's number as information which specifies the communication terminal 100 linked to a center 300. Therefore, to offering information, if the subscriber's number which specifies the connected communication terminal 100 above "an Internet access service" is registered into the customer database, if the user authentication information which specifies the subscriber's number and user who specify the connected communication terminal 100 is not registered into a customer database, information will not be offered by "mobile data utility." Namely, it sets to "mobile data utility." Since connection is permitted for the first time in accordance with the combination of such information which the information transmitted as the subscriber's number and user authentication information for specifying a communication terminal 100 memorized beforehand Connection is not permitted even if a third person sends a connection request from communication terminal 100' which is different in the communication terminal 100 which receives unjustly the user ID and the password which are user authentication information, and is registered into the customer database. Or even if it is the case where an inaccurate user uses the communication terminal 100 registered into the customer database, connection will be permitted to him if the inaccurate user concerned does not know the user ID and the password which are user authentication information. [0024] Next, the individual humanity news of a customer database consists of a subscriber name, the address, a birth date, etc. In case such a customer's individual humanity news offers characteristic information for each customer of every, it is transmitted to the server which performs processing concerning offer of the information. In addition, with this operation gestalt, after performing user authentication in "mobile data utility" so that a third person cannot use individual humanity news freely, it is transmitted to other servers.

[0025] Moreover, as for provided information, the information a customer indicates ** to be to whether it asks for offer of what kind of information at the time of connection just is included. For example, and if it chooses beforehand and registers rather than it chooses the information for which a user asks whenever it connects when information to receive offer beforehand has become settled, offer of the information can be received quickly. [the information that a center 300 can be offered] And functional information is the information about the function which a communication terminal 100 has, for example, is shown by a model, a mold number, etc. of a communication terminal 100. With this operation gestalt, the display format and the amount of information to transmit of contents can be adjusted now based on this functional information.

[0026] 2. Explain actuation of an operation gestalt, next actuation of this operation gestalt which has the configuration mentioned above.

[0027] 2-1. With reference to the sequence flow shown in authentication actuation ****, drawing 4, and 5, the case of an "Internet access service", and in the case of "mobile data utility", divide the authentication actuation in this operation gestalt, and explain it.

[0028] In 2-1-1. "an Internet access service", the authentication actuation in the case of an "Internet access service" is explained first. A communication terminal 100 sends the call setup signal which contains a subscriber's number to the migration network 200, and performs a connection request (S101). The migration network 200 transmits the received subscriber's number to a center 300 while performing a line connection based on a connection request (S102).

[0029] A center 300 attests based on the received subscriber's number, and the negotiation which is processing of synchronous establishment etc. between communication terminals 100 is performed (S103). Authentication is performed here based on whether the received subscriber's number is registered into the customer database in the customer server 302, as explained previously. And after a negotiation is completed, a center 300 assigns an IP address to a communication terminal 100, and transmits the assigned IP address to the migration network 200 (S104). The IP address which is not used for other personal digital assistants etc. out of the IP address which the center 300 has managed beforehand at the time of authentication is used for assignment of an IP address. Next, the migration network 200 transmits an IP address to a communication terminal 100 (S105). Then, in between a communication terminal 100 and a center 300, the data transmission and reception using an IP address

are performed (S106).

[0030] Thus, in an "Internet access service", since it attests only based on the addresser number transmitted at the time of a connection request, the procedure whose user transmits user ID and a password becomes unnecessary, the procedure for authentication can be simplified, a user can access the Internet quickly, and a center 300 becomes possible [providing a user with information quickly] about the information on the Internet 400.

[0031] The authentication actuation the case of 2-1-2. "mobile data utility", next in the case of "mobile data utility" is explained. A communication terminal 100 sends the call setup signal which contains a subscriber's number to the migration network 200, and performs a connection request (S201). The migration network 200 transmits the received subscriber's number to a center 300 while performing a line connection based on a connection request (S202). Next, a center 300 performs the negotiation which is processing of synchronous establishment etc. between communication terminals 100 (S203). If the synchronization with a center 300 and the gestalt terminal 100 is established, a center 300 will transmit user authentication information requirements (S204), and the migration network 200 will transmit user authentication information requirements to a communication terminal 100 (S205). A communication terminal 100 transmits user ID and a password as user authentication information (S206), and the migration network 200 transmits user ID and a password to a center 300 (S207).

[0032] The agent server 301 of a center 300 receives beforehand the user authentication information corresponding to the user authentication information which should be received from a communication terminal 100 in step S206 from the customer server 302 based on the subscriber's number received in step S202. And it attests by distinguishing whether the user authentication information which the user ID and the password which were received in step S206 read beforehand, and the user authentication information received from the customer server 302 are in agreement. If authentication is completed, a center 300 will transmit an authentication response (S208), and the migration network 200 will transmit an authentication response to a communication terminal 100 (S209). Then, a center 100 assigns IP DRESS and is transmitted (S210). The migration network 200 transmits an IP address to a communication terminal 100 (S211). Then, in between a communication terminal 100 and a center 300, the data transmission and reception using an IP address are performed (S212).

[0033] Thus, since the agent server 301 can read user authentication information beforehand based on the subscriber's number transmitted at the time of connection, even when performing user authentication based on two or more information, such as user ID and a password, it becomes possible [processing quickly]. Moreover, since a communication terminal 100 can be specified with the subscriber's number transmitted at the time of a connection request and a user can be specified with the user ID and the password which are transmitted as authentication information, security becomes high more.

[0034] 2-2. Give and explain an example about the actuation in the case of coordinating each server and offering various kinds of information to a communication terminal 100 in the example, next center 300 of information offer actuation.

[0035] (1) The 1st example : when transmitting and receiving individual humanity news between servers and offering information, even if it does not transmit individual humanity news from a communication terminal 100 by transmitting and receiving individual humanity news between servers probably, explain the case where a communication terminal 100 is provided with the information for which a user asks. For example, since the subscriber's number received in step S202 shown in drawing 5 is "010-11-12345" when the user who showed (A) of drawing 3 connects, it turns out that the information to which a user asks for offer is "fortune-telling service." In this example, "fortune-telling service" is information offered based on the contents memorized by the contents server 306. Then, the agent server 301 transmits individual humanity news (a subscriber name, birth date) required in order to offer "fortune-telling service" to the contents server 306. The contents server 306 offers "fortune-telling service" information based on the individual humanity news which received.

[0036] Here, drawing 6 and drawing 7 are the examples of the information to offer. First, drawing 6 is a required-information input screen in "fortune-telling service" which the contents server 306 offers. This screen is a screen for asking a user for an input, when individual humanity news is not transmitted to the

contents server 306. If the activation carbon button JB is operated on a screen after a user inputs individual humanity news, such as a name and a birth date, into the input locations N1 and N2 shown in drawing 6, the fortune-telling result shown in drawing 7 will be displayed. However, as shown in drawing 3 (A), "fortune-telling service" is registered as provided information for which a user asks, and since the individual humanity news which a user should input into the input locations N1 and N2 is beforehand transmitted to the contents server 306 from the customer server 302 based on the directions from the agent server 301, in "fortune-telling service", the contents server 306 performs processing which performs fortune-telling based on individual humanity news. That is, the application on which fortune-telling is performed and displayed is started, and processing which transmits the data for displaying a fortune-telling result (referring to drawing 7) to a communication terminal 100 is performed.

[0037] Thus, since the information for which a user asks is registered beforehand, after connection, a center 300 can perform processing for displaying the information for which a user asks quickly, and can offer the information for which a user asks quickly. Moreover, since required individual humanity news is beforehand transmitted to the contents server 306, even if a user does not perform special actuation of an input etc. using a communication terminal 100, he can receive offer of the information based on individual humanity news.

[0038] (2) The 2nd example: although the case where information was offered using the contents server 306 in a center 300 was explained in the 1st example of the above when external information was offered, explain the example in the case of offering the information on the exterior of a center 300 here. For example, since the subscriber's number received in step S202 shown in drawing 5 is "010-22-12345" when the user who shows drawing 3 (B) connects, it turns out that the information to which a user asks for offer is a "A company weather report." In this example, a "A company weather report" is information offered based on the contents memorized in the A company center 501. Then, the agent server 301 receives the data for displaying a "A company weather report" on a communication terminal 100 from the A company center 501, and transmits to a communication terminal 100.

[0039] Moreover, the agent server 301 transmits the information about the contents transmitted from the A company center 501 to the accounting server 303. The accounting server 303 has memorized the account data about the information received from the A company center 501, and performs processing which computes the accounting information which starts the user concerned whenever it offers the information on the A company center 501 to a user. That is, the accounting server 303 performs processing for executing by proxy and collecting accounting concerning the information which the A company center 501 offers for A company. In addition, it is the same when receiving the information which not only the A company center 501 but the B company center 502 or C company center 503 offers.

[0040] Thus, since it is not necessary to perform procedure for accounting among the centers 501, 502, and 503 of the other company, even when providing a user with the information which the centers 501, 502, and 503 of the other company offer, information can be offered quickly.

[0041] (3) The 3rd example: when offering information according to the function of a communication terminal 100 next, explain the case where information is offered according to the function of a communication terminal 100. For example, since the subscriber's number received in step S202 shown in drawing 5 is "010-33-12345" when the user who shows drawing 3 (C) connects, it turns out that the information to which a user asks for offer is "http://www.xxx." In this example, "http://www.xxx" is URL (Uniform Resource Locator) and shows the location (address of = contents server) where the contents on the Internet 400 are memorized. However, only the case where the connected communication terminal 100 can display only a text, and information with little amount of data may be able to be displayed. In such a case, in this operation gestalt, a fire wall 304 restricts what can be perused among the contents on the Internet 400, or the contents on the Internet 400 are changed into the format which can display a communication terminal 100 by the agent server 301.

[0042] The agent server 301 transmits first URL memorized by the customer server 302 to a fire wall 304. A fire wall 304 judges whether URL which received based on the limit information memorized

beforehand is URL which cannot be perused, and when it distinguishes that it is URL which cannot be perused, it transmits that to a communication terminal 100. On the other hand, when it distinguishes that perusal is possible, the specified contents are received from the Internet 400 and it transmits to the agent server 301. Next, the agent server 301 distinguishes whether the contents on the Internet 400 can be displayed on a communication terminal 100 as it is based on the functional information received from the customer server 302.

[0043] For example, in the functional information shown in drawing 3, when a function is "V1", a communication terminal 100 can display an image, even when the contents on the Internet 400 contain image data, it can be made to display on a communication terminal 100 as it is, but when a function is "V2", a communication terminal 100 cannot display an image. Here, since it is registered with "V2" as functional information on a user's communication terminal 100 shown in drawing 3 (C), the agent server 301 will be distinguished if it cannot display as it is. When it could not display then and distinguishes, the agent server 301 changes the data received from specified URL into the format which can display a communication terminal 100, and transmits to a communication terminal 100. On the other hand, when it distinguishes that displaying as it is possible, the agent server 301 transmits the data received from specified URL to a communication terminal 100 as it is.

[0044] Thus, since perusal can be restricted, or display form can be transformed and it can provide when a user asks for the information which cannot be displayed in the communication terminal 100 which a user owns, the load to the communication terminal 100 which transmits the data in which a display process is impossible to a communication terminal 100 cannot be covered, and information can be offered quickly.

[0045] 3. It is not limited to the operation gestalt which is a modification and which mentioned this invention already, and various kinds of following deformation is possible.

[0046] In the above-mentioned operation gestalt, although the migration network 200 is explained to an example as a communication line, you may be a fixed network. In this case, the telephone of immobilization etc. corresponds to a communication terminal 100, and the exchange of a fixed network corresponds to the migration exchange 201. Moreover, when a communication terminal 100 does not transmit a subscriber's number at the time of call origination, the exchange recognizes a subscriber's number and you may make it transmit to a center 300. In this case, at step S201 shown in step S101 shown in drawing 4, and drawing 5, the call signal which does not contain a subscriber's number is transmitted from a communication terminal 100.

[0047] Although the communication terminal 100 has transmitted to the call setup signal including a subscriber's number, not only this but the communication terminal 100 transmits a certain information (for example, serial number) which specifies a communication terminal as the migration network 200, and it changes into a subscriber's number the information which the migration network 200 received, and you may make it transmit it to a center 300 in the above-mentioned operation gestalt. Moreover, in the center 300, not only a subscriber's number but the communication terminal 100 should just memorize the information corresponding to the terminal specific information included in a call setup signal.

[0048] Moreover, although it has transmitted after there is an authentication demand from a center 300, you may make it the user ID and the password for the authentication which can be "mobile data utility" Set transmit an addresser number, user ID, and a password to coincidence at the time of a connection request. You may make it transmit user ID or not only a password but further two or more information as authentication information.

[0049] Moreover, although the above-mentioned operation gestalt gave and explained three examples as an example of information offer, it is not limited to these. For example, the information for which a user asks is retrieved from a keyword, and you may make it display it, and may make it transmit the information for which a user asks with an electronic mail. Although it shall charge in the above-mentioned example about the information offered from the centers 501, 502, and 503 of the other company (the 2nd example), it may not charge about the information offered not only in this but in the contents server 30, and the information which you may make it charge to the information on the Internet

400, and is offered from the centers 501, 502, and 503 of the other company. Moreover, when receiving informational offer from the center 501 of the other company shown in Example 2, as shown in Example 1, individual humanity news may be received from the customer server 302, and the information based on individual humanity news may be offered. For example, in the case where it is shown in the 2nd example, you may enable it to offer the weather report according to a user's address, and in this case, the agent server 301 extracts only the weather report information on Tokyo which is a user's address ground, and transmits to a communication terminal 100.

[0050] Moreover, although explained as what is provided with the information for which memorizes the information for which a user asks beforehand in the above-mentioned implementation gestalt as customer data, and it asks immediately after authentication, when especially provided information is not memorized, the list of the information with which a main menu etc. can be provided is displayed, and you may make it make a user choose after connection.

[0051] Moreover, although it assumes that the information to offer is offered by an alphabetic character or image data, you may make it offer not only this but speech information in the above-mentioned operation gestalt.

[0052]

[Effect of the Invention] Quick and the informational offer approach of providing insurance with information are realizable, mitigating the actuation in a communication terminal according to this invention, as explained above.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention relates to the informational offer approach of offering information through a communication line to a communication terminal, and informational offer equipment.

[Translation done.]

000-092236,A [PRIOR ART]

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PRIOR ART

[Description of the Prior Art] Conventionally, the technique of offering information through a communication line to a communication terminal is known. For example, if it is personal computer communications, a user's communication terminal can be connected to the host computer of a personal-computer-communications firm through the telephone line, and the information which a host computer offers can be acquired. Moreover, when accessing the Internet, a user's communication terminal is connected to a provider, and the user is provided with the information on the Internet when a provider makes connection with the Internet by proxy. In this case, the provider offers the information on the Internet by giving an IP address (Internet protocol address) to the connected communication terminal.

[Translation done.]

000-092236,A [EFFECT OF THE INVENTION]

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EFFECT OF THE INVENTION

[Effect of the Invention] Quick and the informational offer approach of providing insurance with information are realizable, mitigating the actuation in a communication terminal according to this invention, as explained above.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] In such a Prior art, those who offer information of a personal computer carrier, a provider, etc. are performing the procedure for checking whether the connected communication terminal is a communication terminal of the user of normal. Specifically, the provider of whom connection was required demands transmission of user ID from a communication terminal first. A communication terminal transmits user ID to a provider to the demand. A provider will demand transmission of a password from a communication terminal next, if it checks that user ID is ID of normal. A communication terminal transmits a password to the demand. And a provider performs user authentication by distinguishing whether the transmitted password is a password corresponding to the user ID transmitted previously.

[0004] However, in the offer approach of such conventional information, probably, since user authentication procedure took time amount, the user was not able to receive informational offer quickly. Moreover, when the third person had received user ID and a password, there was a possibility of providing an inaccurate user with information. Furthermore, in order to receive offer of the information for which a user asks, the communication terminal was operated, various information may have to be transmitted and it took time and effort very much.

[0005] It aims at quick and realizing the informational offer approach of offering information, and informational offer equipment safely, mitigating [this invention is made in order to solve the technical problem mentioned above, and] the actuation in a communication terminal.

[Translation done.]

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MEANS

[Means for Solving the Problem] It is characterized by to have the authentication phase which attests whether said connection request is recognized based on said received terminal specific information with the terminal specific-information receiving phase receive the terminal specific information which specifies the communication terminal concerned with the connection request from said communication terminal in the information offer approach of transmitting data through a communication line to the communication terminal with which invention according to claim 1 was attested in order to solve the technical problem mentioned above. In the information offer approach of transmitting data through a communication line to the communication terminal with which invention according to claim 2 was attested moreover, with the connection request from said communication terminal The terminal specific information receiving phase of receiving the terminal specific information which specifies the communication terminal concerned, The customer specific information receiving phase of receiving the customer specific information which specifies a customer, and the customer specific information for authentication which is the customer specific information beforehand memorized for said every terminal specific information, Said received customer information is compared and it is characterized by having the authentication phase which attests whether said connection request is recognized based on the comparison result concerned. Moreover, in the offer approach of information according to claim 1 or 2, invention according to claim 3 is equipped with the address grant phase which gives the Internet protocol address to said attested communication terminal, and is characterized by transmitting data using said given Internet protocol address. In the information offer approach that invention according to claim 4 transmits data through a communication line to a communication terminal moreover, with the connection request from said communication terminal The terminal specific information receiving phase of receiving the terminal specific information which specifies the communication terminal concerned, the customer information beforehand memorized for said every communication terminal -- ** -- with the customer information Request-to-Send phase of requiring transmission of said customer information corresponding to said terminal specific information inside It is characterized by having the data transmitting phase of transmitting the data corresponding to said customer information to said communication terminal based on said transmitted customer information. moreover, invention according to claim 5 -- claim 1 thru/or 4 -- in the offer approach of information given in either, said terminal specific information is characterized by being a subscriber's number in said communication line. Moreover, invention according to claim 6 is characterized by said customer information including the processing information for specifying the processing performed in order to obtain the data corresponding to the customer information concerned in the offer approach of information according to claim 4. Moreover, in the offer approach of information according to claim 4, said customer information is the individual humanity news of the customer corresponding to the customer information concerned, and invention according to claim 7 is characterized by including individual humanity news required for the processing performed in order to obtain the data corresponding to the customer information concerned. Moreover, invention according to claim 8 is characterized by having the accounting phase which generates the accounting information corresponding to said customer information according to

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transmission of said data in the offer approach of information according to claim 4.

[0007] Moreover, invention according to claim 9 is characterized by having a terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned with the connection request from said communication terminal, and the authentication means which attests whether said connection request is recognized based on said terminal specific information which received in the information offer equipment which transmits data through a communication line to the attested communication terminal. In the information offer equipment which transmits data through a communication line to the communication terminal with which invention according to claim 10 was attested moreover, with the connection request from said communication terminal A terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned, A customer specific information receiving means to receive the customer specific information which specifies a customer, and the customer specific information for authentication which is the customer specific information beforehand memorized for said every terminal specific information, Said received customer information is compared and it is characterized by having the authentication means which attests whether said connection request is recognized based on the comparison result concerned. Moreover, in the offer equipment of information according to claim 9 or 10, invention according to claim 11 is equipped with an address grant means to give the Internet protocol address to said attested communication terminal, and is characterized by transmitting data using said given Internet protocol address. In the information offer equipment with which invention according to claim 12 transmits data through a communication line to a communication terminal moreover, with the connection request from said communication terminal A terminal specific information receiving means to receive the terminal specific information which specifies the communication terminal concerned, A customer information storage means to memorize customer information for said every communication terminal beforehand, and a customer information Request-to-Send means to require transmission of said customer information corresponding to said terminal specific information from said customer information storage means, It is characterized by having a data transmitting means to transmit the data corresponding to said customer information to said communication terminal, based on said customer information transmitted from said customer information storage means. moreover, invention according to claim 13 -- claim 9 thru/or 12 -- in the offer equipment of information given in either, said terminal specific information is characterized by being a subscriber's number in said communication line.

[0008]

[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained with reference to a drawing.

[0009] 1. configuration 1-1. outline **** of an operation gestalt -- drawing 1 is drawing showing the outline configuration of an operation gestalt first. This operation gestalt is constituted so that the center 300 which contractors, such as a provider, have may provide a user's communication terminal 100 with information through a communication line (migration network 200).

[0010] The communication terminals 100 in drawing are migration communication terminals, such as a cellular phone and a land mobile radiotelephone, and are connected to the migration network 200 through a base station BS. The communication terminal 100 may be equipped with the function which displays the information offered, and you may make it display information on other equipments, such as a connected note type personal computer and an electronic notebook.

[0011] The migration network 200 is a communication line concerning mobile communication, such as a cellular phone, and is equipped with the migration exchange 201 and INTAWAKU equipment (IWE) 202. The migration exchange 201 is the exchange which held the personal digital assistant which has joined the migration network 200. INTAWAKU equipment 202 is the subscriber exchange of center 300 dedication, and INTAWAKU equipment 202 and a center 300 are connected by the dedicated line.

[0012] A center 300 is for offering information concerning this invention. In addition, about a detailed configuration, it mentions later. The center 300 is further connected to the Internet 400 and the centers 501, 502, and 503 of the other company, and a communication terminal 100 can be provided now with

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the information offered from the internet servers 401 and 402 on the Internet 400, or the information offered from the centers 501, 502, and 503 of the other company.

[0013] 1-2. Explain the configuration of a center 300 with reference to the configuration, next drawing 2 of a center. INTAWAKU equipment 202 is connected with the center 300 by two dedicated lines. One network is a network for offering the information on the Internet by offering the service connected to the Internet in a simple procedure. Another network is a network for providing in the format which was suitable under high security at the communication terminal 100 after charging the information which a center 300 holds, and the information which the center of the other company (the 501 or B company center 502 of A company centers, C company center 503) holds. Hereafter, in explanation of this operation gestalt, make into an "Internet access service" service which offers information by the former network, and let service which offers information by the latter network be "mobile data utility."

[0014] Moreover, with this operation gestalt, the telephone number No2 of the connection place of the user at the time of connecting in order to receive the telephone number No1 of the connection place of the user at the time of connecting in order to receive offer of an "Internet access service", and offer of "mobile data utility" is a different number. That is, a user does call origination to the telephone number according to the service which receives offer, performs a connection request, and distinguishes the service which should be offered with the telephone number of a connection place in a center 300 side. And also in which network, information is offered using the Internet Protocol which gave and gave the IP address (Internet protocol address) to the connected communication terminal 100.

[0015] By the way, since an "Internet access service" is service which only provides a communication terminal 100 with the information on the Internet 400 as it is, the not much strict user authentication approach is not required. Rather, the user is demanding to be quickly connectable in a simple procedure. On the other hand, "mobile data utility" is the information which needs accounting, or since it is the information offered based on individual humanity news as mentioned later, the user authentication approach that security is more high is required. So, with this operation gestalt, the connection from a communication terminal 100 shall be received using the user authentication approach different, respectively from an "Internet access service" and "mobile data utility."

[0016] It attests only based on the subscriber's number contained in the call setup signal specifically sent in an "Internet access service" in case a communication terminal 100 performs a connection request to the telephone number No1, and an IP address is given. Therefore, a user can access the Internet 400, if it only calls to the telephone number No1. Moreover, in "mobile data utility", it attests based on user ID and a password besides the subscriber's number contained in the call setup signal sent in case a communication terminal 100 performs a connection request to the telephone number No2. In addition, it mentions later in more detail.

[0017] In order to offer information to the user who uses a communication terminal 100 by such an "Internet access service" and "mobile data utility", the center 300 is constituted as a network equipped with the various servers (the agent server 301, the customer server 302, the accounting server 303, a fire wall 304, a mail server 305, the contents server 306, a web server 307, and web server 308 with outside) shown in drawing 2.

[0018] First, the agent server 301 is a server for performing authentication and linkage of each server, and also performs processing of conversion of a display format besides being network maintenance and monitor, offer of application, etc. Moreover, when the data format which can be displayed has a limit in a communication terminal 100, external contents, such as contents on the Internet 400 and contents of the centers 501, 502, and 503 of the other company, are changed into the data of display form suitable for a communication terminal 100.

[0019] The customer server 302 is a server which memorized the customer data mentioned later, and transmits customer data to other servers of other with directions of an agent server. Other servers which received customer data can perform processing for information offer based on customer data. More specifically in actuation of an operation gestalt, an example is given and explained.

[0020] The accounting server 303 is a server which performs processing about accounting concerning informational offer. A fire wall 304 is the server for protecting a center 300 from the exterior connected

to the Internet 400, and performs sorting of the data to pass etc. The mail server 305 is equipped with the mail box, and performs processing about an electronic mail. The contents server 306 is a server which memorized the information (contents) for providing for a communication terminal 100. Moreover, a web server 307 and the web server 308 with outside are servers for offering various information, such as a homepage containing the image using GUI (Graphical User Interface), an alphabetic character, etc.

[0021] 1-3. Explain a customer database, next the customer data memorized by the customer server 302. Information is recorded for every subscriber's number of a communication terminal 100, and the user (customer) registered in order to receive offer of data utility from a center 300 is managed as a customer database. And a communication terminal 100 can search data now based on the subscriber's number contained in the call setup signal sent at the time of a connection request.

[0022] Here, drawing 3 is drawing showing the example of the contents of the customer database. The customer database has memorized authentication information, individual humanity news, provided information, functional information, etc. corresponding to a subscriber's number, as shown in drawing 3. Although user authentication information consists of user ID, a password, etc. and user ID and a password are the information which the user registered beforehand at the time of a contract, a password can be updated to arbitration.

[0023] With this operation gestalt, user ID and a password are used as user authentication information (customer specific information for authentication) which specifies the person who connected authentication information, using a subscriber's number as information which specifies the communication terminal 100 linked to a center 300. Therefore, to offering information, if the subscriber's number which specifies the connected communication terminal 100 above "an Internet access service" is registered into the customer database, if the user authentication information which specifies the subscriber's number and user who specify the connected communication terminal 100 is not registered into a customer database, information will not be offered by "mobile data utility." Namely, it sets to "mobile data utility." Since connection is permitted for the first time in accordance with the combination of such information which the information transmitted as the subscriber's number and user authentication information for specifying a communication terminal 100 memorized beforehand Connection is not permitted even if a third person sends a connection request from communication terminal 100' which is different in the communication terminal 100 which receives unjustly the user ID and the password which are user authentication information, and is registered into the customer database. Or even if it is the case where an inaccurate user uses the communication terminal 100 registered into the customer database, connection will be permitted to him if the inaccurate user concerned does not know the user ID and the password which are user authentication information.

[0024] Next, the individual humanity news of a customer database consists of a subscriber name, the address, a birth date, etc. In case such a customer's individual humanity news offers characteristic information for each customer of every, it is transmitted to the server which performs processing concerning offer of the information. In addition, with this operation gestalt, after performing user authentication in "mobile data utility" so that a third person cannot use individual humanity news freely, it is transmitted to other servers.

[0025] Moreover, as for provided information, the information a customer indicates ** to be to whether it asks for offer of what kind of information at the time of connection just is included. For example, and if it chooses beforehand and registers rather than it chooses the information for which a user asks whenever it connects when information to receive offer beforehand has become settled, offer of the information can be received quickly. [the information that a center 300 can be offered] And functional information is the information about the function which a communication terminal 100 has, for example, is shown by a model, a mold number, etc. of a communication terminal 100. With this operation gestalt, the display format and the amount of information to transmit of contents can be adjusted now based on this functional information.

[0026] 2. Explain actuation of an operation gestalt, next actuation of this operation gestalt which has the configuration mentioned above.

[0027] 2-1. With reference to the sequence flow shown in authentication actuation ****, drawing 4, and

[0034] 2-2. Give and explain an example about the actuation in the case of coordinating each server and offering various kinds of information to a communication terminal 100 in the example, next center 300 of information offer actuation.

[0035] (1) The 1st example : when transmitting and receiving individual humanity news between servers and offering information, even if it does not transmit individual humanity news from a communication terminal 100 by transmitting and receiving individual humanity news between servers probably, explain the case where a communication terminal 100 is provided with the information for which a user asks. For example, since the subscriber's number received in step S202 shown in drawing 5 is "010-11-12345" when the user who showed (A) of drawing 3 connects, it turns out that the information to which a user asks for offer is "fortune-telling service." In this example, "fortune-telling service" is information offered based on the contents memorized by the contents server 306. Then, the agent server 301 transmits individual humanity news (a subscriber name, birth date) required in order to offer "fortune-telling service" to the contents server 306. The contents server 306 offers "fortune-telling service" information based on the individual humanity news which received.

[0036] Here, drawing 6 and drawing 7 are the examples of the information to offer. First, drawing 6 is a required-information input screen in "fortune-telling service" which the contents server 306 offers. This screen is a screen for asking a user for an input, when individual humanity news is not transmitted to the contents server 306. If the activation carbon button JB is operated on a screen after a user inputs individual humanity news, such as a name and a birth date, into the input locations N1 and N2 shown in drawing 6, the fortune-telling result shown in drawing 7 will be displayed. However, as shown in drawing 3 (A), "fortune-telling service" is registered as provided information for which a user asks, and since the individual humanity news which a user should input into the input locations N1 and N2 is beforehand transmitted to the contents server 306 from the customer server 302 based on the directions from the agent server 301, in "fortune-telling service", the contents server 306 performs processing which performs fortune-telling based on individual humanity news. That is, the application on which fortune-telling is performed and displayed is started, and processing which transmits the data for displaying a fortune-telling result (referring to drawing 7) to a communication terminal 100 is performed.

[0037] Thus, since the information for which a user asks is registered beforehand, after connection, a center 300 can perform processing for displaying the information for which a user asks quickly, and can offer the information for which a user asks quickly. Moreover, since required individual humanity news is beforehand transmitted to the contents server 306, even if a user does not perform special actuation of an input etc. using a communication terminal 100, he can receive offer of the information based on individual humanity news.

[0038] (2) The 2nd example : although the case where information was offered using the contents server 306 in a center 300 was explained in the 1st example of the above when external information was offered, explain the example in the case of offering the information on the exterior of a center 300 here. For example, since the subscriber's number received in step S202 shown in drawing 5 is "010-22-12345" when the user who shows drawing 3 (B) connects, it turns out that the information to which a user asks for offer is a "A company weather report." In this example, a "A company weather report" is information offered based on the contents memorized in the A company center 501. Then, the agent server 301 receives the data for displaying a "A company weather report" on a communication terminal 100 from the A company center 501, and transmits to a communication terminal 100.

[0039] Moreover, the agent server 301 transmits the information about the contents transmitted from the A company center 501 to the accounting server 303. The accounting server 303 has memorized the account data about the information received from the A company center 501, and performs processing which computes the accounting information which starts the user concerned whenever it offers the information on the A company center 501 to a user. That is, the accounting server 303 performs processing for executing by proxy and collecting accounting concerning the information which the A company center 501 offers for A company. In addition, it is the same when receiving the information which not only the A company center 501 but the B company center 502 or C company center 503

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offers.

[0040] Thus, since it is not necessary to perform procedure for accounting among the centers 501, 502, and 503 of the other company, even when providing a user with the information which the centers 501, 502, and 503 of the other company offer, information can be offered quickly.

[0041] (3) The 3rd example : when offering information according to the function of a communication terminal 100 next, explain the case where information is offered according to the function of a terminal 100 next, explain the case where information is offered according to the function of a communication terminal 100. For example, since the subscriber's number received in step S202 shown in drawing 5 is "010-33-12345" when the user who shows drawing 3 (C) connects, it turns out that the information to which a user asks for offer is "http://www.xxx." In this example, "http://www.xxx" is URL (Uniform Resource Locator) and shows the location (address of = contents server) where the contents on the Internet 400 are memorized. However, only the case where the connected communication terminal 100 can display only a text, and information with little amount of data may be able to be displayed. In such a case, in this operation gestalt, a fire wall 304 restricts what can be perused among the contents on the Internet 400, or the contents on the Internet 400 are changed into the format which can display a communication terminal 100 by the agent server 301.

[0042] The agent server 301 transmits first URL memorized by the customer server 302 to a fire wall 304. A fire wall 304 judges whether URL which received based on the limit information memorized beforehand is URL which cannot be perused, and when it distinguishes that it is URL which cannot be perused, it transmits that to a communication terminal 100. On the other hand, when it distinguishes that perusal is possible, the specified contents are received from the Internet 400 and it transmits to the agent server 301. Next, the agent server 301 distinguishes whether the contents on the Internet 400 can be displayed on a communication terminal 100 as it is based on the functional information received from the customer server 302.

[0043] For example, in the functional information shown in drawing 3, when a function is "V1", a communication terminal 100 can display an image, even when the contents on the Internet 400 contain image data, it can be made to display on a communication terminal 100 as it is, but when a function is "V2", a communication terminal 100 cannot display an image. Here, since it is registered with "V2" as functional information on a user's communication terminal 100 shown in drawing 3 (C), the agent server 301 will be distinguished if it cannot display as it is. When it could not display then and distinguishes, the agent server 301 changes the data received from specified URL into the format which can display a communication terminal 100, and transmits to a communication terminal 100. On the other hand, when it distinguishes that displaying as it is possible, the agent server 301 transmits the data received from specified URL to a communication terminal 100 as it is.

[0044] Thus, since perusal can be restricted, or display form can be transformed and it can provide when a user asks for the information which cannot be displayed in the communication terminal 100 which a user owns, the load to the communication terminal 100 which transmits the data in which a display process is impossible to a communication terminal 100 cannot be covered, and information can be offered quickly.

[0045] 3. It is not limited to the operation gestalt which is a modification and which mentioned this invention already, and various kinds of following deformation is possible.

[0046] In the above-mentioned operation gestalt, although the migration network 200 is explained to an example as a communication line, you may be a fixed network. In this case, the telephone of immobilization etc. corresponds to a communication terminal 100, and the exchange of a fixed network corresponds to the migration exchange 201. Moreover, when a communication terminal 100 does not transmit a subscriber's number at the time of call origination, the exchange recognizes a subscriber's number and you may make it transmit to a center 300. In this case, at step S201 shown in step S101 shown in drawing 4, and drawing 5, the call signal which does not contain a subscriber's number is transmitted from a communication terminal 100.

[0047] Although the communication terminal 100 has transmitted to the call setup signal including a subscriber's number, not only this but the communication terminal 100 transmits a certain information (for example, serial number) which specifies a communication terminal as the migration network 200,

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and it changes into a subscriber's number the information which the migration network 200 received, and you may make it transmit it to a center 300 in the above-mentioned operation gestalt. Moreover, in the center 300, not only a subscriber's number but the communication terminal 100 should just memorize the information corresponding to the terminal specific information included in a call setup signal.

[0048] Moreover, although it has transmitted after there is an authentication demand from a center 300, you may make it the user ID and the password for the authentication which can be "mobile data utility". Set transmit an addresser number, user ID, and a password to coincidence at the time of a connection request. You may make it transmit user ID or not only a password but further two or more information as authentication information.

[0049] Moreover, although the above-mentioned operation gestalt gave and explained three examples as an example of information offer, it is not limited to these. For example, the information for which a user asks is retrieved from a keyword, and you may make it display it, and may make it transmit the information for which a user asks with an electronic mail. Although it shall charge in the above-mentioned example about the information offered from the centers 501, 502, and 503 of the other company (the 2nd example), it may not charge about the information offered not only in this but in the contents server 30, and the information which you may make it charge to the information on the Internet 400, and is offered from the centers 501, 502, and 503 of the other company. Moreover, when receiving informational offer from the center 501 of the other company shown in Example 2, as shown in Example 1, individual humanity news may be received from the customer server 302, and the information based on individual humanity news may be offered. For example, in the case where it is shown in the 2nd example, you may enable it to offer the weather report according to a user's address, and in this case, the agent server 301 extracts only the weather report information on Tokyo which is a user's address ground, and transmits to a communication terminal 100.

[0050] Moreover, although explained as what is provided with the information for which memorizes the information for which a user asks beforehand in the above-mentioned implementation gestalt as customer data, and it asks immediately after authentication, when especially provided information is not memorized, the list of the information with which a main menu etc. can be provided is displayed, and you may make it make a user choose after connection.

[0051] Moreover, although it assumes that the information to offer is offered by an alphabetic character or image data, you may make it offer not only this but speech information in the above-mentioned operation gestalt.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is drawing showing the whole operation gestalt configuration.

[Drawing 2] It is drawing showing the configuration of a center.

[Drawing 3] It is drawing showing the example of contents of a customer database.

[Drawing 4] It is drawing showing the sequence of the authentication actuation in an Internet access service.

[Drawing 5] It is drawing showing the sequence of the authentication actuation in mobile data utility.

[Drawing 6] It is the example of a display of the information which needs the input of individual humanity news.

[Drawing 7] It is the example of a display of the information offered based on individual humanity news.

[Description of Notations]

100 Personal digital assistant

BS Base station

200 Migration network

201 Migration exchange

202 INTAWAKU equipment

300 Center

301 Agent server

302 Customer server

303 Accounting server

304 Fire wall

305 Mail server

306 Contents server

307 Web server

308 Web server with outside

400 Internet

401 402 The Internet top server

501, 502, 503 Center of the other company

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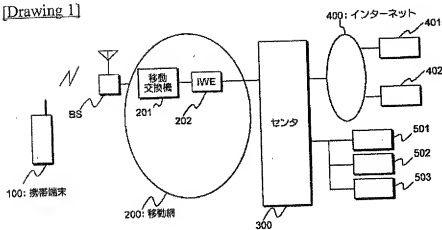
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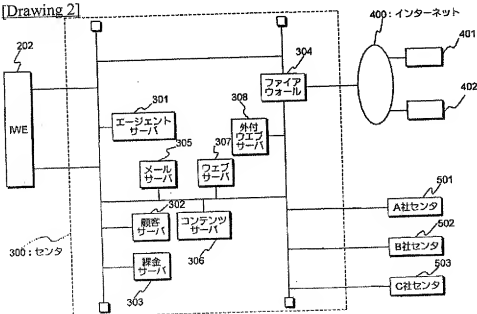
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

[Drawing 1]



[Drawing 2]



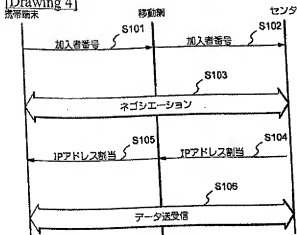
[Drawing 3]

データベース

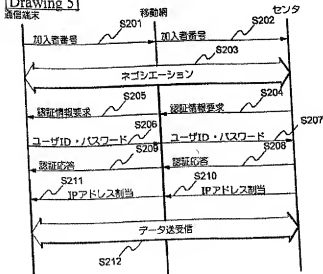
	加入者番号	認証情報		個人情報		提供情報	機能情報
		ユーザID	パスワード	加入者名	住所		
(A)へ	010-11-12345	1234	ABCD	織田 涼子	東京都中央区...	1970.01.01	古いサービス V1
(B)へ	010-22-12345	5678	VXYZ	西村 裕二	千葉県千葉市...	1960.12.31	A社天気予報 V1
(C)へ	010-33-12345	9876	OPQR	広末 雅彦	東京都大田区...	1980.10.10	http://www.xoo V2

...

[Drawing 4]



[Drawing 5]



[Drawing 6]

占いサービス

氏名: N1

生年月日: N2

実行 JB

[Drawing 7]

占いサービス

1970年1月1日 生まれの
堀田 透子 さんの今日の運勢

金運急上昇中!!
ぜひ強くじを買うべき

[Translation done.]

JAPANESE [JP,2000-092236,A]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE
INVENTION TECHNICAL PROBLEM MEANS DESCRIPTION OF DRAWINGS DRAWINGS
WRITTEN AMENDMENT

[Translation done.]